

## **REMARKS**

### **I. Claims Rejections - 35 U.S.C. § 112**

The Office Action rejects Claims 1-11 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. According to the Office Action, the use of "phenolic resin adducts is confusing." Applicants have amended component C) of Claim 1 to be directed to a mixture consisting of resorcinol and formaldehyde, thereby rendering the present rejection moot. Accordingly, Applicants request withdrawal of this ground of rejection.

The Office Action states that "paraformaldehyde" and "hexamethylene tetramine" are not formaldehyde." Applicants respectfully traverse this ground of rejection. As illustrated in Appendix A, paraformaldehyde and hexamethylene tetramine are forms of formaldehyde. Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

The Office Action also states in Claim 6, "phenol", "resorcinol" and "formaldehyde" are not condensed phenolic resins. Applicants have deleted Claim 6; therefore Applicants respectfully submit that the present rejection is moot and therefore, request withdrawal of this ground of rejection.

### **II. Rejection under 35 U.S.C. §102(b)/103(a)**

Claims 1-11 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative under 35 U.S.C. § 103(a) as obvious over DE 19701487 (DE '487). Applicants respectfully traverse this ground of rejection.

Amended Claim 1 of the present invention is directed to Rubber compounds comprising uncrosslinked, double bond-containing rubbers (A), crosslinked rubber particles (B) and a mixture consisting of resorcinol and formaldehyde (C), wherein the double bond-containing rubbers (A) are present in quantities of 100 parts by weight, the crosslinked rubber particles (B) in quantities of 10 to 150 parts by weight and (C) in quantities of 0.1 to 50 parts by weight, and wherein the crosslinked rubber particles (B) are selected from the group consisting of BR, ABR, IR, SBR, X-SBR, SIBR, FKM, ACM, ENR, NR, CR, IIR, BIIR, CIIR, EPM, EPDM, EAM, AVM, CO, ECO, Q, AU and EU and wherein the formaldehyde is in the form of paraformaldehyde or hexamethylene tetramine.

Applicants submit that in order to anticipate a claim the prior art reference must teach each and every element of the claimed invention, either expressly or inherently. Also, Applicants respectfully submit that "in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claims limitations. The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure." See MPEP § 2142, citing In re Vaeck, 947 F.2d 488, 20 USPQ 2d. 1438 (Fed. Cir. 1991).

DE '487 discloses a rubber composition comprising an acrylonitrile butadiene rubber gel and a double bond containing rubber. DE '487 does not teach or suggest a rubber compound comprising a rubber gel that is selected from the group consisting of BR, ABR, IR, SBR, X-SBR, SIBR, FKM, ACM, ENR, NR, CR, IIR, BIIR, CIIR, EPM, EPDM, EAM, AVM, CO, ECO, Q, AU and EU. In the alternative, DE '487 merely teaches that the rubber composition can comprise a NBR or XNBR rubber gel. For at least these reasons Applicants respectfully submit that DE '487 does not teach or suggest, nor does DE '487 provide motivation to one skilled in the art to arrive at a rubber composition comprising components (A), (B), and (C) as claimed in the present invention. Accordingly, Applicants request withdrawal of this ground of rejection.

### **III. Rejection under 35 U.S.C. § 103(a)**

Claims 1, 3, 4, 6-8, 10 and 11 where rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 1020492 alone, or in view of Obrecht, et al. (U.S. Patent No. 6,127,488). Applicants traverse this ground of rejection. Also, Applicants submit that this ground of rejection is moot given the fact that the subject matter of Claim 5, which does not stand rejected under the referenced art, has been incorporated into independent Claims 1, 10 and 11. Accordingly, Applicants respectfully traverse this ground of rejection.

#### **IV. Rejection under 35 U.S.C. § 103(a)**

Claims 1-8, 10 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Doran, Jr. et al. (U.S. Patent No. 3,821,133) in view of Obrecht, et al. (U.S. Patent Nos. 6,127,488 and 5,395,891). Applicants respectfully traverse this ground of rejection. Applicants' comments above are incorporated herein.

Doran, Jr. et al. discloses a rubber composition, which comprises SBR, BR, EPDM or NR with a mixture comprising **an aromatic hydroxy compound, a methylene donor and an amino compound**. According to the disclosure of Doran, Jr. et al. the compound has a **plurality of amino groups**, i.e. a polyimine. Doran, Jr. et al. does not teach or suggest a rubber composition, which also comprises a rubber gel, nor does Doran, Jr. et al. teach a rubber composition which comprises a mixture **consisting of resorcinol and formaldehyde**.

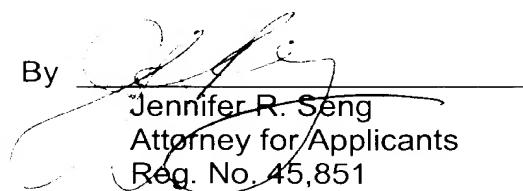
Obrecht, et al. teaches a rubber compound comprising at least one styrene/butadiene rubber gel and at least on rubber which contains double bonds. Obrecht, et al. does not teach or suggest adding a mixture consisting of resorcinol and formaldehyde.

Applicants respectfully submit that Doran, Jr. et al. in view of Obrecht, et al. does not teach or suggest every claim limitation of the present invention. Specifically, Doran, Jr. et al. in view of Obrecht, et al. does not teach or suggest a rubber composition which includes a mixture consisting of resorcinol and formaldehyde nor does either reference provide motivation to use a mixture consisting of resorcinol and formaldehyde. Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

Please cancel Claims 4 – 6 without prejudice or disclaimer.

Please amend the claims as follows:

1. (Amended) Rubber compounds comprising uncrosslinked, double bond-containing rubbers (A), crosslinked rubber particles (B) and ~~phenolic resin adducts or condensed phenolic resins~~ a mixture consisting of resorcinol and formaldehyde (C), ~~whereby~~ wherein the double bond-containing rubbers (A) are present in quantities of 100 parts by weight, the crosslinked rubber particles (B) in quantities of 10 to 150 parts by weight and the ~~phenolic resin adducts or condensed phenolic resins~~ (C) in quantities of 0.1 to 50 parts by weight, and wherein the crosslinked rubber particles (B) are selected from the group consisting of BR, ABR, IR, SBR, X-SBR, SIBR, FKM, ACM, ENR, NR, CR, IIR, BIIR, CIIR, EPM, EPDM, EAM, AVM, CO, ECO, Q, AU and EU and wherein the formaldehyde is in the form of paraformaldehyde or hexamethylene tetramine.

10. Rubber vulcanizates comprising rubber compounds, which comprise uncrosslinked, double bond-containing rubbers (A), crosslinked rubber particles (B) and a mixture consisting of resorcinol and formaldehyde (C), ~~wherein phenolic resin adducts or condensed phenolic resins (C), whereby~~ the double bond-containing rubbers (A) are present in quantities of 100 parts by weight, the crosslinked rubber particles (B) in quantities of 10 to 150 parts by weight and ~~the phenolic resin adducts or condensed phenolic resins (C) in quantities of 0.1 to 50 parts by weight. (C) in~~ quantities of 0.1 to 50 parts by weight, and wherein the crosslinked rubber particles (B) are selected from the group consisting of BR, ABR, IR, SBR, X-SBR, SIBR, FKM, ACM, ENR, NR, CR, IIR, BIIR, CIIR, EPM, EPDM, EAM, AVM, CO, ECO, Q, AU and EU and wherein the formaldehyde is in the form of paraformaldehyde or hexamethylene tetramine.

11. Molded rubber articles comprising rubber compounds, which comprise uncrosslinked, double bond-containing rubbers (A), crosslinked rubber particles (B) and a mixture consisting of resorcinol and formaldehyde (C), wherein phenolic resin adducts or condensed phenolic resins (C), whereby the double bond-containing rubbers (A) are present in quantities of 100 parts by weight, the crosslinked rubber particles (B) in quantities of 10 to 150 parts by weight and the phenolic resin adducts or condensed phenolic resins (C) in quantities of 0.1 to 50 parts by weight. (C) in quantities of 0.1 to 50 parts by weight, and wherein the crosslinked rubber particles (B) are selected from the group consisting of BR, ABR, IR, SBR, X-SBR, SIBR, FKM, ACM, ENR, NR, CR, IIR, BIIR, CIIR, EPM, EPDM, EAM, AVM, CO, ECO, Q, AU and EU and wherein the formaldehyde is in the form of paraformaldehyde or hexamethylene tetramine.

APPENDIX A